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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/649,120	08/28/2000	Thierry Laurent	P00039902	7048
23353	7590	06/02/2006	EXAMINER	
RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036			SHINGLES, KRISTIE D	
			ART UNIT	PAPER NUMBER
			2141	

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/649,120

Applicant(s)

LAURENT ET AL.

Examiner

Kristie Shingles

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 54-92 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 54-92 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant has not amended any claims.

Claims 1-53 are cancelled.

Claims 54-92 are pending.

Response to Arguments

1. Applicant's arguments (see Remarks pages 10-14), filed 2/27/2006, with respect to the rejection of claim 54 under 35 USC § 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of *Aziz et al* (USPN 6,597,956).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 54-92** are rejected under 35 U.S.C. 102(e) as being anticipated by *Aziz et al* (USPN 6,597,956).

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a. **Regarding claims 54, 62 and 70, *Aziz et al* teach a method, computer program product, and apparatus for managing a storage area network (SAN), the method comprising:**

- defining storage domains respectively having associated configurable storage management properties that are separate from individual physical capabilities of physical storage resources available through the SAN, wherein a first set of storage management properties is associated with a first storage domain and a second set of storage management properties is associated with a second storage domain, with the first set of storage management properties being different from the second set of storage management properties (col.7 lines 1-30, col.9 lines 18-50, col.10 lines 40-50, col.20 line 35-col.21 line 8; SAN zones function as storage domains with configurable storage and associated properties specific to each zone);
- accommodating the creation of logical volumes configurable for presentation to hosts through the SAN (col.8 lines 35-52, col.10 lines 40-50, col.23 lines 26-36); and
- allocating the logical volumes to hosts in the context of the storage domains, wherein allocating a first logical volume to a first host in the context of the first storage domain entails the provision of storage resources according to the first set of storage management properties and allocating a second volume to a second host in the context of the second storage domain entails the provision of storage resources according to the second set of storage management properties (col.8 lines 35-64, col.10 lines 40-50, col.11 line 16-col.12 line 32; storage devices of particular SAN zones with specific properties are allocated to hosts).

b. **Regarding claim 78, *Aziz et al* teach a storage area network (SAN) that accommodates presentation of logical volumes to hosts and associates access to storage with configurable storage management properties defined by a storage domain, the storage area network comprising:**

- storage domains respectively defined to have associated configurable storage management properties that are separate from individual physical capabilities of physical storage resources available through the SAN, wherein a first set of storage management properties is associated with a first storage domain and a second set of storage management properties is associated with a second storage domain, with the first set of storage management properties being different from

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the second set of storage management properties (col.7 lines 1-30, col.9 lines 18-50, col.10 lines 40-50, col.20 line 35-col.21 line 8; SAN zones function as storage domains with configurable storage and associated properties specific to each zone);

- logical volumes configurable for presentation to hosts through the SAN (col.8 lines 35-52, col.10 lines 40-50, col.23 lines 26-36); and
- means for allocating the logical volumes to hosts in the context of the storage domains, wherein allocating a first logical volume to a first host in the context of the first storage domain entails the provision of storage resources according to the first set of storage management properties and allocating a second volume to a second host in the context of the second storage domain entails the provision of storage resources according to the second set of storage management properties (col.8 lines 35-64, col.10 lines 40-50, col.11 line 16-col.12 line 32; storage devices of particular SAN zones with specific properties are allocated to hosts).

c. **Regarding claims 55, 63, 71, and 79, *Aziz et al* teach the method of claims 54, 62, 70, and 78, wherein presentation of logical volumes to hosts accommodates storage resource access by hosts without requiring hosts to be configured according to the requirements of the physical storage resources (col.9 lines 5-32).**

d. **Regarding claims 56, 64, 72, and 80, *Aziz et al* further teach the method of claims 55, 63, 71, and 79, wherein the first logical volume and the second logical volume are a common logical volume, with allocation of the common logical volume to the first host subject to the first set of storage management properties and allocation of the common logical volume to the second host subject to the second set of storage management properties (col.10 lines 31-65, col.11 lines 16-67, col.20 lines 52-63).**

e. **Regarding claims 57, 65, 73, and 81, *Aziz et al* teach the method of claims 54, 62, 70, and 78, wherein the storage management properties comprise a guaranteed storage capacity (col.9 lines 26-35, col.23 lines 57-61).**

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f. **Regarding claims 58, 66, 74, and 82, *Aziz et al*** teach the method of claims 54, 62, 70, and 78, wherein the storage management properties comprise a guaranteed I/O properties that include an I/O bandwidth and/or an I/O operations (col.24 lines 35-41).

g. **Regarding claims 59, 67, 75, and 83, *Aziz et al*** teach the method of claims 54, 62, 70, and 78, wherein the storage management properties comprise a guaranteed availability (col.5 lines 5-22, col.6 lines 28-35, col.9 lines 26-35, col.23 lines 16-67, col.24 lines 18-32).

h. **Regarding claims 60, 68, 76, and 84, *Aziz et al*** teach the method of claims 54, 62, 70, and 78, wherein the storage management properties comprise a guaranteed performance (col.5 lines 5-22, col.9 lines 18-50, col.23 67 lines 16-67, col.24 lines 18-32).

i. **Regarding claims 61, 69, 77, and 85, *Aziz et al*** teach the method of claim 54, 62, 70, and 78, wherein the storage management properties comprise a guaranteed integrity (col.9 lines 1-50, col.21 lines 1-8, col.23 lines 16-67, col.24 lines 18-32).

j. **Regarding claims 86, 88, 90, and 91, *Aziz et al*** teach the method of claims 56, 64, 70, and 80, wherein the first set of storage management properties includes a first class of service and the second set of storage management properties including a second class of service, whereby access of the common volume by the first and second hosts entails differing classes of service (col.6 lines 1-18, col.9 lines 18-50, col.10 lines 40-62, col.11 line 1-col.12 line 30, col.20 line 52-col.21 lines 17).

k. **Regarding claims 87, 89, and 92, *Aziz et al*** teach the method of claims 54, 62, and 78, wherein the first and second sets of storage management properties are softly configured such that they are reconfigurable without requiring an update of the connections to the physical

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storage resources (col.2 lines 45-52, col.6 lines 9-18, col.10 lines 51-55, col.23 line 16-col.24 line 7).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Aziz et al (6,779,016), Raz et al (5,852,715), Kitamura et al (6,907,498), Blumenau et al (6,502,162), Parks et al (6,598,174).


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie Shingles whose telephone number is 571-272-3888. The examiner can normally be reached on Monday-Friday 8:30-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kristie Shingles
Examiner
Art Unit 2141

kds


RUPAL DHARIA
SUPERVISORY PATENT EXAMINER